

Lab 10

Name abhinav c

Usn 1bm23cs008

```
class A {

    synchronized void foo(B b) {
        String name = Thread.currentThread().getName();
        System.out.println(name + " entered A.foo");

        try {
            Thread.sleep(1000);
        } catch (InterruptedException e) {
            System.out.println("A Interrupted");
        }

        System.out.println(name + " trying to call B.last()");
        b.last();
    }

    void last() {
        System.out.println("Inside A.last");
    }
}

class B {

    synchronized void bar(A a) {
        String name = Thread.currentThread().getName();
        System.out.println(name + " entered B.bar");

        try {
            Thread.sleep(1000);
        } catch (InterruptedException e) {
            System.out.println("B Interrupted");
        }

        System.out.println(name + " trying to call A.last()");
        a.last();
    }

    void last() {
        System.out.println("Inside B.last");
    }
}
```

```
}
```

```
class Deadlock implements Runnable {
```

```
    A a = new A();
```

```
    B b = new B();
```

```
    Deadlock() {
```

```
        Thread.currentThread().setName("MainThread");
```

```
        Thread t = new Thread(this, "RacingThread");
```

```
        t.start();
```

```
        a.foo(b); // Main thread calls foo on object A, locking A
```

```
        System.out.println("Back in main thread");
```

```
    }
```

```
    public void run() {
```

```
        b.bar(a); // Racing thread calls bar on object B, locking B
```

```
        System.out.println("Back in other thread");
```

```
    }
```

```
    public static void main(String args[]) {
```

```
        new Deadlock();
```

```
    }
```

```
}
```

```
usn: 1bm23cs008
name:abhinav c
MainThread entered A.foo
RacingThread entered B.bar
MainThread trying to call B.last()
RacingThread trying to call A.last()
Inside B.last
Inside A.last
Back in main thread
Back in other thread
```